CLAIMS

What is claimed is:

1 1.   A method of providing access to services across a computer network, comprising the

2   step of:

3   generating an access request, said access request including a network device

4   description and a plurality of service requests indicative of computer services

5   for which the network device requests provisioning; and

6   forwarding said access request for authentication and authorization.

1 2.   A method according to Claim 1 in which the access request is a RADIUS packet, the

2   service requests being defined by information contained within Vendor-Specific Attribute

3   (VSA) blocks in the said packet.

1 3.   A method according to Claim 2 in which each said block contains a device-type

2   identifier and a service-request identifier.

1 4.   A method according to Claim 2 in which the packet is a RADIUS-compliant

2   authentication request packet.

1 5.   A method according to Claim 1 in which the device description includes one or more

2   of device vendor, device type, device version, physical location.

1 6.   A method according to Claim 1 in which the service requests include a request for a

2   particular service level.

1 7.   A method according to Claim 1 in which a policy is applied to the access request to

2   determine whether access will be allowed, and if so for what services.

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1   8.   A method according to Claim 1 in which a network resources are provisioned in

2   dependence upon the access request.

1   9.   A method according to Claim 1 in which the steps of receiving and applying are

2   performed by an access-control server or an Authentication, Authorization and Audit (AAA)

3   server.

1   10.   A method according to Claim 9 in which the access-control server uses the access

2   request to select among multiple services that are specified for a particular device.

1   11.   A network device arranged to provide access to services across a computer network,

2   comprising:

3   means for generating an access request, said access request including a network

4   device description and a plurality of service requests indicative of computer

5   services for which the network device requests provisioning; and

6   means for forwarding said access request for authentication and authorization.

1   12.   A network device according to Claim 11 including means to generate RADIUS-

2   compliant packets, the service requests being defined by information contained within

3   Vendor-Specific Attribute (VSA) blocks in this said packet.

1   13.   A network device, comprising:

2   a network interface capable of being coupled to a computer network and for sending

3   to the network access requests, and a processor having one or more stored

4   sequences of instructions which, when executed, cause the processor to

5   perform the steps of:

6   generating an access request for forwarding via the network interface, said access

7   request including a network device description and a plurality of service

8   requests indicative of computer services for which the network device

9   requests provisioning; and

10   forwarding said access request for authentication and authorization..

1   14.   A network device according to Claim 13 in which the access request is received as a

2   RADIUS packet, the service requests being defined by information contained within Vendor-

3   Specific Attribute (VSA) blocks in this said packet.

1   15.   A network device according to Claim 14 in which each said block contains a device-

2   type identifier and a service-request identifier.

1   16.   A network device according to Claim 14 in which the packet is a RADIUS-compliant

2   authentication request packet.

1   17.   A network device according to Claim 13 in which the device description includes one

2   or more of device vendor, device type, device version, physical location.

1   18.   A network device according to Claim 13 in which the service requests include a

2   request for a particular service level.

1   19.   A computer system comprising

2   an access-control server for controlling access to resources on the network when

3   requested by network devices, the access-control server being arranged:

4   (a) to receive an access request from a network device, said access request

5   including a network device description and a plurality of service requests

6   indicative of computer services for which the network device requests

7   provisioning; and

8   (b) to apply a policy to the access request to determine whether access will be

9   allowed, and if so for what services.

1   20.   A computer system according to Claim 19 in which the access control server instructs

2   the provisioning of network resources in dependence upon the access request.

1   21.   A computer system according to Claim 19 in which the access-control server is an

2   Authentication, Authorization and Audit (AAA) server.

1   22.   A computer system according to Claim 19 in which the access-control server uses the

2   access request to select among multiple services that are specified for a particular device.

1   23.   A computer-readable medium carrying a sequence of instructions which, when

2   executed by one or more processors, causes said processor or processors to perform the steps

3   of:

4   generating an access request for access to resources on a computer network, said

5   access request including a network device description and a plurality of

6   service requests indicative of computer services for which the network device

7   requests provisioning; and

8   forwarding said access request for authentication and authorization..

1   24.   A computer-readable medium according to Claim 23 further including instructions for

2   generating a RADIUS packet, the service requests being defined by information contained

3   within Vendor-Specific Attribute (VSA) blocks in said packet.

1   25.   A computer-readable medium according to Claim 24 further including instructions for

2   creating within each said block a device-type identifier and a service-request identifier.

1   26.   A computer-readable medium according to Claim 24 in which the generated packet is

2   a RADIUS-compliant authentication request packet.

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1 27. A computer-readable medium according to Claim 23, in which the device description
2 includes one or more of device vendor, device type, device version, physical location.

1 28. A computer-readable medium according to Claim 23, in which service requests
2 include a request for a particular service level.

1 29. A network device as claimed in claim 11 or claim 13 comprising a network access
2 device which controls end-user device access to a network, and which requests services on
3 behalf of one or more said end-user devices.

1 30. A network device as claimed in claim 11 or claim 13 in which said device requests
2 services for its own use.